



# Reducing the African American HIV Disease Burden in the Deep South: Addressing the Role of Faith and Spirituality

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## Abstract

Nearly half of HIV infections in the United States are concentrated among African Americans, and over half of new HIV infections occur in the South. African Americans have poorer outcomes in the entire continuum of HIV and PrEP care. Complex social, structural, and behavioral factors contribute to our nation's alarming racial disparities in HIV infection, particularly in the Deep South. Despite the importance of faith, spirituality and religious practice in the lives of many African Americans, there has been little scientific investment exploring how African Americans' religious participation, faith and spirituality may impact our nation's HIV epidemic. This article summarizes the state of the science on this critical issue. We also identify opportunities for new scholarship on how faith, spirituality and religious participation may impact HIV care continuum outcomes in the South and call for greater federal research investment on these issues.

**Keywords** HIV prevention · Southern United States · Faith-based Organizations · African Americans

## Background

The United States has wide geographic and racial disparities in HIV outcomes. The HIV epidemic is most pronounced in the South, which has the highest rates of HIV infection [1].

Approximately 46% of people living with HIV reside in the South [1]. African Americans are also disproportionately affected; while they represent 13% of the total United States population, African Americans represented 44% of all new HIV diagnoses reported in 2016 [2]. The HIV infection rate was 44.3 per 100,000 compared to 5.3 per 100,000 among Whites; the HIV diagnosis rate among African Americans is eight times the rate of White Americans [3]. In 2016, African Americans accounted for 54% of all new HIV diagnoses

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in the South [1]. African American men who have sex with other men (MSM) account for 59% of all HIV diagnoses among African Americans in the South [4]. Similarly, African American women account for 69% of all HIV diagnoses among women in the South [4].

African Americans do not engage in more high-risk behaviors than persons of other races [5–11]. However, they have poorer outcomes along the entire HIV care continuum, including for HIV diagnosis, linkage to HIV care, retention in HIV care, antiretroviral therapy prescription and adherence, and viral suppression [12]. Emerging research also finds racial and geographic disparities in the continuum of pre-exposure prophylaxis (PrEP) continuum [13–16]. These outcomes stem from complex social and structural factors such as HIV stigma, limited access to health services, complex sexual networks, lower levels of health insurance coverage, high rates of incarceration, and residential segregation [14, 16, 17].

### The Role of African American FBOs in Addressing Racial Disparities in the HIV Epidemic

In recent years, increasingly more policy attention and federal resources have been focused on reducing racial disparities in HIV infection. The United States' National AIDS Strategy (NAS) goals include decreasing HIV incidence and reducing racial disparities in HIV diagnosis [3]. National Institutes of Health (NIH) goals also prioritize research that aims to reduce racial disparities in HIV incidence [18]. More recently, the “Ending the HIV Epidemic: A Plan for America” Initiative calls for increasing investments in HIV programs in geographic hotspots of infection in order to reduce racial disparities [19, 20]. Achieving these goals will require research and programmatic strategies that focus on dramatic improvements in HIV diagnosis, retention in HIV care, and higher rates of virological suppression among people living with HIV. Achieving NAS goals will also likely require scaling new biomedical prevention interventions such as PrEP and treatment as prevention (TasP).

This will also require addressing the complex *social and structural factors* that raise African Americans' HIV acquisition risks and their related clinical outcomes. Reducing racial disparities in HIV infection will require addressing the negative influences that impact health disparities. Perhaps most importantly, reducing disparities requires leveraging the cultural capital and social *strengths* of the African American community.

Drawing on the important role of faith and spirituality in African American communities provides important public health opportunities. African Americans are more likely than other Americans to believe in God, attend church, and

support religious engagement on social and political issues [21]. African American churches have played important roles in the Civil Rights Movement and African American voting efforts in the United States, ultimately culminating in important civil rights legislation in the United States. Faith-based organizations (FBOs) are organizations whose values are based on faith or spiritual beliefs [22]. African American FBOs have long been recognized as critical partners for delivering social services, health-related behavior change interventions, and chronic disease interventions [23]. Moreover, church-based health promotion interventions have improved health outcomes for African Americans when conducted in culturally appropriate ways [23].

This opportunity is even more important in the Deep South, including in the Southern states of Alabama, Arkansas, Georgia, Louisiana, Mississippi, and South Carolina, and the Bible Belt, a term commonly used to describe the region of socially conservative and evangelical Protestantism located in the Deep South [24]. Nearly two-thirds (64%) of African Americans in the Southern Bible Belt are affiliated with a Historically Black Church [25]. In spite of the public health opportunity associated with working with churches, HIV prevention programs have been underutilized among African American FBOs located in the Bible Belt [24, 25].

Given the crucial role of FBOs in the African American social fabric, there is important public health opportunity to partner with FBOs to reduce racial disparities, and to leverage the positive role of faith and spirituality in African American communities to reduce racial disparities in HIV infection in the Deep South. Here, we provide an overview of recent progress in this area and identify priorities for programs and research on these topics.

### Historical Challenges with HIV Prevention Programming with African American FBOs

In spite of the public health opportunity of working with African American FBOs, several factors have historically undermined optimal engagement of African American FBOs in HIV prevention, clinical care, and support services. First, HIV stigma, limited HIV awareness, homophobia, and reluctance to discuss human sexuality have often limited African American FBOs to effectively address HIV in their communities [26–28]. Paralyzing stigma related to HIV has been harmful for many African Americans, and gay, bisexual and other sexual minority men in particular, the subgroups at greatest risk for acquiring HIV infection in the United States [3]. High levels of stigma may also inhibit African Americans from disclosing their sexual orientation and HIV status in faith-based settings. Negative messages preached from church pulpits about homosexuality have driven many African American gay, bisexual and other sexual minority men

away from FBOs and their spiritual homes [29]. Negative messages can also contribute to internalized homophobia, which may inhibit men from seeking clinical services related to HIV prevention and care.

Moreover, research about how to work effectively with faith institutions to enhance the HIV care continuum remains limited. This can be attributed to several factors. First, NIH funding on these topics has been limited. Moreover, limited research on this issue may also be attributed to a common but unfortunate cultural divide between the gay activist community and some churches of color. Although the gay community and the African American community have made great strides in their respective civil rights agendas, they often use different language, nomenclature, strategies and cultural norms to advance their goals. This cultural divide, and common reluctance to discuss human sexuality and homosexuality in faith contexts, has undermined effective collaboration between gay leaders and many clergy and FBOs [27].

In many places, HIV prevention education among clergy and their staff may be suboptimal. This is not necessarily due to lack of interest, rather, it's often due to lack of resources, and limited information about geographic and racial disparities. This phenomenon has been compounded by the fact that biomedical HIV prevention has become increasingly technical and clinically-oriented as the evidence base about the efficacy of biomedical interventions has evolved [30]. Moreover, resources dedicated to “high-impact prevention” as defined by the CDC now discourage screening efforts in low prevalence settings [31]. In spite of the public health opportunity for clergy to normalize HIV screening by offering screening at churches, FBOs are often low prevalence settings and therefore many may no longer be eligible to receive federally funded HIV programmatic support to conduct screening and outreach efforts [31]. While members of FBOs may have lower HIV prevalence than other clinical or community settings, FBOs can play very important roles in addressing stigma and promoting resilience for people at risk for and living with HIV. For example, providing platforms for performing and conducting HIV screening, treatment and disclosure of HIV-positive serostatus in partnership with FBOs might help normalize conversations about HIV testing, treatment and care. These types of dialogue may also provide important platforms for public health messaging about how HIV treatment reduces HIV transmission risks, commonly termed “U = U,” or “Undetectable = Untransmissible.” These efforts, in turn, could help enhance HIV screening and clinical outcomes at every point along the continuum of HIV prevention and care.

Additionally, many FBOs deliver health services and related support services through specific ministries. However, not all FBOs, particularly smaller churches in the Deep South, have the technical capacity to develop and sustain

health ministries that provide a safe space to educate congregations about HIV and other sexual health topics. Moreover, some studies have found that while pastors feel a moral duty to respond to the HIV epidemic [27, 32], they believed their core competencies are overseeing the spiritual wellbeing of their parishioners and their congregations' salvation rather than delivering health and wellness services. Additionally, given that churches offer crucial social, political, economic and health support systems for many African Americans, there many competing demands on pastors' time and limited congregational resources [27, 33, 34]. In summary, lack of participation in HIV programs and discussions may not necessarily be attributed to lack of will, but may reflect time constraints, limited technical knowledge about the scope of the national epidemic and local microepidemics, and limited financial resources.

It is also worth noting the limited number of academic researchers who have been trained to partner with churches in culturally congruent ways. Infrequent participation in HIV programming and scholarship may therefore not reflect the lack of will of African American FBOs, but insufficient training among scholars and public health practitioners. Many academic public health programs lack sufficient courses and training opportunities to train scholars how to effectively collaborate and conduct research with African American FBOs or methods related to community-engaged scholarship. Working with African American FBOs requires culturally congruent and culturally-tailored approaches that may be best led by African American investigators who understand African American culture; however, African Americans are underrepresented among HIV/AIDS academic researchers [35].

Research with African American FBOs should be tailored to the cultural values and beliefs of FBOs in order to successfully improve health outcomes. African American investigators may be best poised to lead collaborative HIV research with African American FBOs because they may more readily identify and build upon the community's culture, values and beliefs. For example, African American investigators may have shared experiences and belief systems with African American FBOs, and this shared commonality can provide useful insight to build collaborations with African American FBOs. Moreover, cultural competence and the geographic reach of HIV scholars can be limited, as are federal resources to undertake research that explores how to create partnerships with FBOs and clinical care organizations. To address this limitation, funding should be allocated to train more researchers of color to work in targeted geographical areas outlined in “Ending the HIV Epidemic: A Plan for America.” For example, the Minority HIV/AIDS Research Initiative (MARI), is a federally-funded program designed to mentor underrepresented racial and ethnic minority scientists in HIV prevention

research [36]. Efforts are needed to continually fund and promote training programs that help underrepresented racial and ethnic minorities conduct HIV prevention research in communities of color.

## Promising Approaches to Engaging Faith Communities in HIV Prevention and Care

Importantly, an emerging body of research demonstrates that African American clergy are increasingly becoming willing to engage in HIV prevention and care programs as well as related research [24, 26–30, 32, 37–49]. Other recent research highlights successful HIV screening and stigma reduction efforts in African American churches [24, 26–30, 32, 37–49]. New research highlights successful case studies as models for engaging African American clergy and FBOs in HIV programs and research (Table 1). Many of these lessons are from organizations in the Deep South.

In South Carolina, Project FAITH (Fostering AIDS Initiatives that Heal) engaged African American houses of worship from across the state. FAITH was designed to meet faith leaders and congregations “where they are” related to their efforts to discuss and promote HIV prevention and care. FAITH provided support for locally-developed programs to increase awareness about HIV, provide education to congregants and communities, and in some cases support HIV testing activities, with overarching goals of HIV prevention and stigma elimination. The South Carolina HIV/AIDS Council led the development and implementation of Project FAITH, and provided training, skills, and technical assistance to Care Teams, who led the locally-based implementation in each FBO. Deliberate engagement and skills-building activities were conducted for both faith and lay leaders. Coleman and colleagues found that engaged local leadership, as well as sustained technical assistance and capacity building guidance maximized the reach and impact of Project FAITH and related screening services [18]. Importantly, this intervention demonstrated that FBOs are capable of providing appropriately messaged, culturally sensitive HIV interventions when given the opportunity to work with a local, trusted community-based organization [39, 40].

In Alabama, Foster and colleagues successfully engaged rural African American clergy in efforts to explore their beliefs about HIV stigma and interests in addressing HIV [41, 50]. This research found that rural Baptist Pastors understood their important role in the community and that Pastors also understood how churches might perpetuate and/or mitigate HIV-related stigma. Notably, they found that clergy were more willing to address the HIV epidemic with their congregations if they had spouses working in related fields, were already engaged in social justice work with their congregations, or had lived in major metropolitan

geographical areas of the United States [41, 50]. These findings suggest that rural African American pastors are willing to undertake HIV work, but some may need greater capacity-building activities. Notably, Foster also developed and tested a faith-based, anti-stigma intervention with 12 African American churches in rural Alabama. They found that clergy-led efforts were highly effective in reducing HIV-related stigma; that is one of few studies that has documented how clergy can *reduce* HIV related stigma [32]. It is noteworthy that the intervention was led, developed and implemented by African Americans in rural Alabama, a part of the country where HIV infection rates and stigma rates are high. These findings suggest that research on these topics is indeed feasible and interventions can be effective when led by culturally competent, local scholars.

Clergy from the 9th District African Methodist Episcopal (AME) Church in Alabama implemented five regionally-focused 3-h HIV trainings with nearly 150 clergy and faith leaders referred to as *Love with No Exceptions*. Trainings included HIV education, faith-based messages developed and delivered by AME pastors, community-based organizations and health care providers. At each training, a person living with HIV shared personal stories in an effort to raise awareness and normalize conversations about HIV. HIV testing was also offered at each training, and condoms were freely distributed displayed at vendor tables [51, 52]. To our knowledge, this was one of the first statewide HIV faith-based trainings developed with an entire Diocese or statewide organization. This research framework serves as a model for scaling HIV awareness, screening and other prevention activities across the Deep South.

Recent efforts in Tennessee identified numerous factors that contribute to African American churches’ “readiness to address HIV” [53, 54]. Importantly, having a faith leader who is committed to and engaged in HIV prevention dialogue and associated activities was the most important factor influencing a congregation’s willingness to address HIV [54, 55]. As found in Mississippi and elsewhere, additional barriers in Tennessee also included concerns about messages about tailoring messages for faith settings and pastors’ beliefs that they had insufficient financial resources to address HIV among their congregations [53–55]. Clinicians in Tennessee also indicated willingness to work with African American FBOs but indicated they needed help identifying collaborating FBOs [56].

*Faith in Action*, hosted by Brown University programs in Pennsylvania and Mississippi, also provide important lessons. *Faith in Action* refers to two coalitions of African American clergy committed to fighting stigma and increasing HIV screening, treatment and care. *Faith in Action* began as a research study in Philadelphia, Pennsylvania, that engaged the city’s most influential faith leaders to solicit recommendations for how to engage African American clergy

**Table 1** Promising approaches to engaging faith communities in HIV prevention and care

Author (year)	Setting	Design of study and/or program	Study sample	Study findings
Coleman et al. [26]	South Carolina	Project FAITH (Fostering AIDS Initiatives that Heal) provided support to churches and FBOs to implement local HIV prevention programs	8 pastors, 4 technical assistance providers, and 2 project champions; 22 care team members	FAITH was designed to meet faith leaders and congregations “where they are” related to their efforts to discuss and promote HIV prevention and care. They found that engaged local leadership, as well as sustained technical assistance and capacity building guidance maximized the reach and impact of Project FAITH and related screening services
Payne-Foster et al. [32]	Rural Alabama	Project Faith-based Anti-stigma Initiative towards Healing HIV (FAITHH) intervention examined the effectiveness of a faith-based stigma-focused intervention vs a knowledge-based HIV curriculum	12 churches in rural Alabama	Anti-stigma intervention group reported a significant reduction in individual-level stigma compared with the control group. They found that clergy-led efforts were highly effective in reducing HIV-related stigma; that is one of few studies that has documented how clergy can reduce HIV related stigma
Lanzi et al. [51]	Alabama	University of Alabama at Birmingham (UAB) Center for AIDS Research (CFAR) Behavioral and Community Sciences Core Faith and Spirituality Research Network (UAB-CFAR-FSRN) is a collaborative partnership between the faith-based community and academic research that implemented <i>Love with No Exceptions</i> , a HIV training program for faith leaders	150 clergy and faith leaders	This Network is an example of the research and faith-based community joining forces to address the HIV epidemic in the South, particularly in the African American community. It is also one of the first statewide HIV faith-based trainings developed with a statewide organization.
Pichon et al. [54]	Tennessee	This study used a community-based participatory research approach to understand faith leaders’ willingness to engage in a HIV prevention program	26 faith leaders across 23 churches	They found that the pastor’s blessing determined whether the church was ready to engage in HIV prevention; and the church’s purview of sexual health as part of a holistic ministry facilitated the leader’s readiness.
Pichon et al. [53]	Michigan	YOUR Blessed Health (YBH) is a faith-based HIV prevention pilot program structured to increase organizational capacity to respond to the HIV/AIDS epidemic	52 faith leaders from 42 participating FBOs	In general, faith leaders felt comfortable discussing sexual health issues and topics, but there were differences in comfort level based on one’s leadership role and denomination

Table 1 (continued)

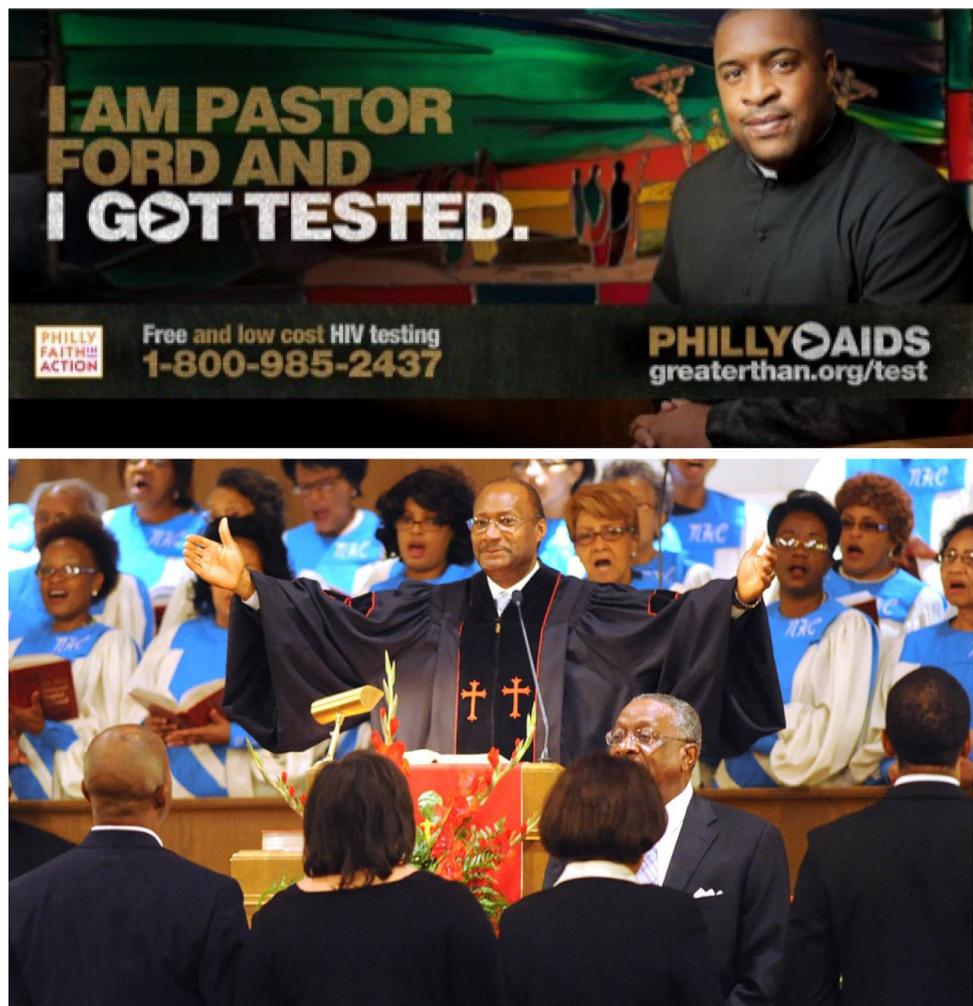
Author (year)	Setting	Design of study and/or program	Study sample	Study findings
Nunn et al. [37], Nunn et al. [27], Nunn et al. [38], and Ransome, Bogart, Nunn et al. [66]	Mississippi	These studies solicited the city's most influential African American faith leaders about their recommendations about how to most effectively engage AA clergy in HIV screening, prevention and care activities		Clergy suggested the faith community should: promote HIV screening, including during or after worship services; integrate HIV/AIDS into health messaging and sermons; conduct community outreach and host educational sessions for youth; and strategically engage the media in citywide HIV prevention messaging to combat stigma and raise awareness about the African American epidemic. Clergy understood how HIV is transmitted but were unaware about geographic hotspots of HIV infection. Many clergy were interested in learning more about PrEP and were willing to support scaling of biomedical prevention and care interventions in partnership with clinics. Clergy solicited technical assistance to scale biomedical interventions with clinical partners
Berkley-Patton et al. [47] and Berkley-Patton et al. [48]	Kansas and Missouri	Taking It to the Pews (TIPS) HIV Tool Kit consists of 40 tools and has been implemented in 25 churches with over 8000 congregants and community members. This study examined the capacity of the church to develop and disseminate the toolkit	124 church leaders across 58 churches	The majority of church leaders wanted to learn more about HIV and how to discuss it with their congregants. This study found that TIPS HIV Tool Kit did naturally "fit" within a church infrastructure and helped churches' build experience with HIV prevention and services

in HIV prevention and care activities [37, 38]. Most faith leaders cited lack of knowledge about racial disparities in HIV infection as a common reason for not engaging previously in HIV programs. Barriers to engaging the faith community in HIV prevention included: concerns about tacitly endorsing extramarital sex by promoting condom use; lack of educational information appropriate for a faith-based audience; and fear of losing congregants and revenue as a result of discussing human sexuality and HIV/AIDS from the pulpit. However, many leaders expressed a moral imperative to respond to the AIDS epidemic. Pastors also noted that controversy surrounding homosexuality had historically divided the faith community and prohibited an appropriate response to the epidemic; many expressed interest in balancing traditional theology with practical public health approaches to HIV prevention. Clergy suggested that the faith communities should: promote HIV screening, including during or after worship services; integrate HIV/AIDS into health messaging and sermons; conduct community outreach and host educational sessions for youth; and strategically engage the media in citywide HIV prevention messaging to

combat stigma and raise awareness about the African American epidemic. Clergy also suggested that health disparities and civil rights language, as well as language about routinizing HIV screening, would resonate more with clergy than delivering sexual behavioral interventions in faith settings [27, 37, 38].

Lessons learned from *Faith In Action* clergy informed *Faith In Action* programs in both Philadelphia, Pennsylvania, and Jackson, Mississippi. In Philadelphia, these lessons were applied in a 2012 social marketing and screening campaign conducted in partnership with the Kaiser Family Foundation's *Greater than AIDS* Campaign (Fig. 1). To our knowledge, this was the first citywide clergy effort to promote HIV testing and awareness campaign in a major metropolitan area, and the effort also culminated in increased HIV screening among participating congregations [37]. Drawing on the evidence base and lessons learned from Philadelphia, the *Faith In Action* program was then replicated in Jackson, Mississippi. Research studies from the Jackson *Faith In Action* site found that clergy are willing and able to promote HIV screening and efforts to enhance the HIV care continuum,

**Fig. 1** Top: Bus advertisement featuring Pastor Jonathan Ford, with *Philly Faith in Action*; Bottom: Rev. Dr. Jerry Young preaches about HIV with *Mississippi Faith in Action*



but they need further training about clinical issues related to the HIV care continuum. They also expressed a desire to enhance partnerships with HIV clinical care organizations [30]. Clergy also requested more training about how HIV is transmitted, biomedical prevention interventions such as PrEP and TasP, and efforts to promote retention in HIV care [30].

Additionally, Berkley-Patton et al. found that faith leaders were interested in learning more about HIV, discussing it with their congregants, and getting tested for HIV [28]. This study in Midwestern states of Kansas and Missouri found that a multi-level intervention in four African American churches contributed to significant increases HIV screening among African American congregants [47, 49]. Findings from these studies demonstrate the need for more culturally tailored interventions that fit naturally within the fabric of church infrastructure, which often differ from clinical or other public health infrastructure [28, 44]. These case studies also found that community-based interventions that include education, leverage pastoral influence, and offer on-site screening services can reduce HIV-related stigma and enhance HIV screening uptake in African American FBOs [28, 44, 47–49].

## Recommendations and Opportunities for Future Research

The aforementioned studies provide an important evidence base and starting point for developing more programs and research with African American FBOs, as well as leveraging the role of faith and spirituality to enhance HIV outcomes in the Deep South. In spite of these important efforts, there are still many unanswered questions for how to most effectively work with FBOs to reduce racial disparities in HIV infection in the Deep South. These gaps can help define a research agenda for these topics.

Collectively, lessons learned from the aforementioned HIV prevention programs with African American FBOs underscore that resilience, the ability to adapt and respond to adversity, may be a useful research framework for enhancing HIV care outcomes among African Americans in the South. Resiliency is a cornerstone of the culture and community mobilization strategies of many African American FBOs in the South [57]. During the Civil Rights Era of the twentieth century, many churches and church-affiliated organizations, as well as the National Association for the Advancement of Colored Peoples, provided platforms for African American mobilization on sociopolitical issues. This history demonstrated that African American FBOs could be instrumental in the development and dissemination of interventions that concurrently affirm faith and sexual identity [57]. Research focused on resilience and affirmation of faith and sexual

identity, particularly among African American sexual and gender minorities, present important opportunities for new scholarship about HIV in the Deep South.

Moreover, tailored interventions may help to promote resilience and overcome HIV stigma and homophobia among African American gay, bisexual and other sexual minority men in the South [58]. Future research could help identify how interventions focused on faith- or spirituality-related resilience can enhance improvements along the HIV care continuum and encourage preventive behaviors, such as uptake of and adherence to PrEP.

The research agenda should also identify best practices and strategies to engage clergy and African American FBOs in HIV prevention and care programming. African American clergy are increasingly becoming willing to engage in HIV prevention programs and research [26–28]. However, there is no scientific consensus regarding *how* to engage clergy and congregations in HIV prevention and treatment in culturally appropriate ways. While the randomized control trial is often considered the “gold standard” for research methodology, there is a need for non-traditional research designs that may be more culturally appropriate for FBOs and non-traditional designs may be best suited for understanding how social and structural factors influence HIV infection and outcomes among African Americans. Such research has proven to be especially useful in developing and evaluating church-based HIV interventions in rural and urban areas of the South [50, 59, 60]. Community-engaged research with African American FBOs that uses participatory processes may also build upon the community’s strengths and resources, and foster knowledge generation that addresses real world public health problems. Community-engaged research, rather than randomized research designs, could potentially help to transform the social contexts that keep the HIV diagnosis rate disproportionately high among African Americans.

Additionally, the degree to which participation in institutional worship services enhances or undermines HIV care outcomes is not yet well understood. Two recent systematic reviews examining the relationship between religion, spirituality, and HIV clinical outcomes among individuals living with HIV found that religion and spirituality to be protective factors for HIV care outcomes in many studies; however, a few other studies found no associations or negative associations with HIV outcomes [61, 62]. These reviews also highlighted the paucity of information on African American subpopulations and a need for more nuanced understandings of the roles religion and spirituality may play in different subpopulations’ lives [61, 62]. Studies demonstrate that effects of participation in worship services on people’s experiences vary widely. One study found that among African American women living with HIV, attending worship services was associated with increased resilience and health-seeking behaviors [42]. However, another study within a

predominantly African American sample of gay, bisexual and other sexual minority men living with HIV found attending worship services was associated with later presentation for HIV care [63]. Moreover, young African American gay, bisexual and other sexual minority men have described how alienation from faith-based institutions limited their health-seeking behaviors related to HIV prevention and care [64]. These issues deserve further scientific attention; there is a need for studies exploring how participation in religious worship services, as well as the role of faith and spirituality in general, may impact the HIV and PrEP care continua among different subpopulations of African Americans in the Deep South.

There is also a need for research exploring the impact of congregational-level interventions on HIV prevention and care continuum outcomes. There is a paucity of research exploring the mediating pathways of congregation-level interventions on individuals' behaviors. One well-established pathway through which religion improves health is that social support enhances individual health outcomes. Congregations provide important social support, can encourage healthy behaviors, and support development of coping strategies among congregation members [65]. Some of the most successful church-delivered health promotion programs focused on other diseases have provided comprehensive culturally-tailored health information in addition to telephone counseling [23]. Congregational-level interventions could conceivably be useful mechanisms for enhancing the HIV and PrEP care continuum outcomes and reducing racial disparities in HIV infection, but these causal pathways need to be better explored and understood. For instance, Ransome and colleagues found in a recent nationwide survey that faith leaders' messages about HIV and conversations about human and same-sex sexuality were associated with willingness to use PrEP among African Americans [66]. Future work should explore how congregational and clergy efforts to discuss biomedical HIV prevention services might impact uptake of biomedical prevention services such as PrEP and HIV care.

Furthermore, more research is needed to better understand how FBOs can address disparities in HIV prevention and care among youth congregational members (aged 13–24). Youth represent 21% of all new HIV diagnoses and among those 81% occurred among young gay, bisexual and other sexual minority men, in which African American and Hispanic men were disproportionately affected [67]. At the end of 2015, it was estimated that 60,300 youth were living with HIV in the United States and more than half of these youth were living with *undiagnosed HIV*, which is the highest rate of undiagnosed HIV in any age group [67]. Furthermore, only 27% of youth living with HIV are virally suppressed, which is the lowest rate of viral suppression for any age group. Despite being one of the most

instrumental determinants of STI acquisition, the quality of sexual health education varies throughout the United States and a recent study found a 23% reduction in the number of schools requiring education on HIV prevention from 2000 to 2014 [68]. FBOs may be well-positioned to address and respond to HIV/AIDS among youth, particularly in the South. One pilot intervention in North Carolina, Focus on Youth (FOY) with Informed Parents and Children Together (ImPACT), examined the effectiveness of a HIV prevention curriculum for African American youth [69]. This intervention was delivered through established friendship groups via church youth groups and it also engaged parents in developing communication skills around sexual risk reduction. This intervention provides evidence about feasibility and acceptability of collaborating with FBOs to enhance HIV prevention among youth.

HIV prevention practices outside the United States offer important insights. In sub-Saharan Africa, FBOs organizations provide approximately half of all HIV-related health services [70]. FBOs are the largest global nongovernmental providers of pediatric HIV services [71]. In the United States, however, FBOs provide very few HIV-related health services. A nationally representative study of African American congregations found that only 4% had conducted any activities to serve persons living with HIV [72]. More research focused on FBOs could lead to the development of novel interventions and strategies to reduce HIV diagnoses among African Americans. More research could also help identify innovative strategies for disseminating *existing* HIV interventions.

Structural interventions “implement or change laws, policies, physical structures, social or organizational structures, or standard operating procedures to affect environmental or societal change [73].” Because of FBOs' widespread presence and influence in many African American communities, FBOs are well positioned support development and dissemination of structural interventions. Moreover, in several research studies, even among clergy willing to undertake conversations to promote HIV education, screening and care, faith leaders have commented that their core competencies rest not in providing prevention and care services, but in providing spiritual and social support for the African American communities [30, 41]. Structural interventions may provide important vehicles for leveraging those core competencies; research that supports how FBOs might be able to support structural interventions to reduce disparities should be an important part of the research agenda about how to engage FBOs in reducing HIV disparities.

Additionally, emerging research finds significant racial and geographic differences along the PrEP care continuum. PrEP utilization is lowest in the South, particularly in rural areas, and is also lower among African Americans than Whites [74]. FBOs and churches may be able to play

important roles in about awareness and uptake of biomedical HIV prevention efforts and help normalize use of biomedical interventions among the African American community in the Deep South. For example, messages about biomedical HIV prevention efforts (PrEP and TasP) could be integrated into sermons and religious broadcasting programs. Churches could also promote the observance and advocacy of national AIDS awareness events. Also, churches could create partnerships with clinical organizations in order to promote routine HIV screening and immediate linkage to care. However, nascent research suggests some churches may need further support and technical assistance about how to disseminate important messages about biomedical interventions such as PrEP, treatment as prevention and “U = U” [27, 30]. This is a ripe opportunity for dissemination science related to enhancing the continuum of PrEP care.

Lastly, the overwhelming majority of research about HIV and spirituality has focused on upstream endpoints of the HIV care continuum such as HIV education and screening [24, 26, 27, 29, 37, 39, 41, 44, 47–49], and less about how to effectively work with FBOs to enhance downstream outcomes such as linkage and retention in HIV care, and HIV virological suppression. While several studies have focused on the role of spirituality in HIV clinical outcomes, the results have been mixed [61, 62]. To our knowledge, few studies have focused on how FBOs can enhance HIV care and HIV virological suppression. Only one study has focused on how faith leaders might enhance outcomes in the continuum of PrEP care [30]. Additionally, for many of the aforementioned reasons discussed earlier in this article, many best practices for HIV prevention with FBOs may never be published in the peer-reviewed scientific literature; this is one limitation associated with assessing the evidence base related to engaging FBOs in HIV prevention. There is overwhelming need for studies that bridge the social and clinical science disciplines to explore how engaging FBOs and clergy might enhance HIV and PrEP care outcomes in the Deep South.

## Conclusion

The *National HIV/AIDS Strategy for the United States: Updated to 2020* recommends partnerships with FBOs to improve HIV-related outcomes among African Americans [75]. *Ending the HIV Epidemic: A Plan for America* calls for a “whole of society approach” to ending the HIV epidemic, including partnerships with FBOs as well as major investments in geographic hotspots of HIV infection in the South [19, 20]. Given our nation’s wide racial disparities in HIV infection and the important historical and current role of clergy in the African American community, there is tremendous public health opportunity to work collaboratively with

churches in the Deep South to address the HIV epidemic in the African American community. New research should bridge the social and clinical disciplines and capitalize on the cultural assets and strengths of the African American community to promote improvements in HIV and PrEP care continua. We call on the NIH, HRSA and CDC to invest in implementation research and programs, with a focus on reducing racial disparities in the Deep South.

## Compliance with Ethical Standards

**Conflict of interest** The authors declared no potential conflicts of interest with respect to the research, authorship, or publication of this article.

**Research Involving Human Participants and/or Animals** This article did not include human or animal subjects, therefore, no institutional review board approval was needed.

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